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EXAMINER
MITCHELL, DANIEL D

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
	10/529,257	AALTONEN, JANNE
Office Action Summary	Examiner	Art Unit	
	DANIEL MITCHELL	2419	

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/4/2008*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>25-40</u> is/are pending in the application.

  4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>25-40</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>25 March 2006</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

  Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

  Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

  a)☐ All b)☐ Some * c)☐ None of:

    1.☐ Certified copies of the priority documents have been received.

    2.☐ Certified copies of the priority documents have been received in Application No. _____.

    3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

  * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 112

1.　　The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of
> making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the
> art to which it pertains, or with which it is most nearly connected, to make and use the same and shall
> set forth the best mode contemplated by the inventor of carrying out his invention.

2.　　Claim 41 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply

with the written description requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to reasonably convey to one

skilled in the relevant art that the inventor(s), at the time the application was filed, had

possession of the claimed invention. The applicant states in claims 41 computer-

readable medium storing computer executable instructions for causing a network

element to perform a method, but fails to disclose what is considered computer

readable medium in the specification, thereby rendering it new matter.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
> matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent
Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV,
reads as follows:

> Descriptive material can be characterized as either "functional descriptive material" or "nonfunctional
> descriptive material." In this context, "functional descriptive material" consists of data structures and
> computer programs which impart functionality when employed as a computer component. (The
> definition of "data structure" is "a physical or logical relationship among data elements, designed to

support specific data manipulation functions." The New IEEE Standard Dictionary of Electrical and Electronics Terms 308 (5th ed. 1993).) "Nonfunctional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.

When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized. Compare In re Lowry, 32 F.3d 1579, 1583-84, 32 USPQ2d 1031, 1035 (Fed. Cir. 1994) (claim to data structure stored on a computer readable medium that increases computer efficiency held statutory) and Warmerdam, 33 F.3d at 1360-61, 31 USPQ2d at 1759 (claim to computer having a specific data structure stored in memory held statutory product-by-process claim) with Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory).

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claim(s) **[40]** is/are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim **[40]** defines **[a computer program]** embodying functional descriptive material. However, the claim does not define a computer-readable medium or memory and is thus non-statutory for that reason (i.e., "When functional descriptive material is recorded on some computer-readable medium it becomes structurally and functionally interrelated to the medium and will be statutory in most cases since use of technology permits the function of the descriptive material to be realized" – Guidelines Annex IV). That is, the scope of the presently claimed **[a computer program]** can range from paper on which the program is written, to a program simply contemplated and memorized by a person.

Response to Amendment

3.   Applicant's amendment filed on December 4, 2008 has been entered. Claims 25-

33 and 40 have been amended. Claims 1-25 and 41 are canceled. Claims 25-40 are

still pending in this application, with claims 25 and 33 being independent.

Response to Arguments

4.   Applicant's arguments, see pg 5, filed December 4, 2008, with respect to 35 USC

103 rejections have been fully considered and are persuasive. The rejections of 25-41

have been withdrawn.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 25-29, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kanterakis (US Patent No. 7,099,346 B1), hereinafter referred as Kanterakis in

view of Lin et al. (US Patent No. 6,088,721), hereinafter referred as Lin.

        Regarding claim 25, Kanterakis discloses an apparatus comprising:

        a first logical interface for receiving data from a first host **[col. 3 lines 60-67**

teaches an interface to core network]; a second logical interface for

transmitting said data to one or more further hosts **[col. 3 lines 60-67 teaches an interface to transmit data to mobile station]**; and a cache **[content buffer]**, wherein said apparatus is configured to store received data in the cache until a predetermined condition is met **[accumulation timer]** and, in response to the meeting of this condition, to forward the data to said further hosts in said group**[col. 6 line 59 – col. 7 line 5 teaches transmitting data to mobile station upon the expiration of a timer]**, and wherein the processor is configured to limit the group to further hosts situated at the same location **[col. 6 lines 13-21 teaches an RNC functions in a cell]**

However Kanterakis does not expressly disclose a processor for defining a group comprising one or more further hosts, wherein a further host is added to the group in response to the reception of a request.

Lin discloses multicasting and transmitting data to all nodes requesting a specified set of data, thus forming the group **[col. 6 lines 30-45]**;

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Kanterakis to include adding a host to a group in response to a request. One would be motivated as such in order to replicate and transmit data consistently within a network **col. 1 line 49-56.**

Regarding claim 26, Kanterakis discloses wherein a file is transmitted between the apparatus and the first host via a cellular communications network **[col. 5 lines 45-**

54 teaches a cellular communications network and col. 6 line 59 – col. 7 line 5

teaches transmitting data to a first host] and the location of the further host is

defined in terms of a cell, so that the group is limited to further hosts situated in an area

covered by a single cell [col. 6 lines 13-21 teaches an RNC functions in a cell].

Regarding claim 27, Kanterakis discloses configured to forward a file over

a wireless communication network, being the last network element located before

an air-interface in a file delivery path between the first host and one or more

further hosts [col. 6 lines 10 teaches base station in a CDMA environment

where the base station can service further hosts].

Regarding claim 28, Kanterakis discloses comprising a router [col. 13 line

67 – col. 14 line 9 teaches a router].

Regarding claim 29, Kanterakis discloses comprising a timer, wherein the

predetermined condition is the expiry of a time limit [col. 6 line 59 – col. 7 line 5

teaches transmitting data upon the expiration of an accumulation timer].

Regarding claim 31, Kanterakis discloses a node communicating with

several mobile nodes col. 3 lines 60-67.

However Kanterakis does not expressly discloses receiving requests

from the further hosts via a first communication path and to forward data to

the further hosts via a second communication path, separate from the first communication path.

Lin discloses **[fig. 1]** separate paths for each of the network elements to send requests and receive data and **[col. 6 lines 30-35]** teaches receiving the transmission requests.

See similar motivation as claim 25.

Regarding claim 32, Kanterakis discloses an apparatus as to the parent claim. **However Kanterakis does not expressly disclose wherein the first communication path and the second communication path comprise separate networks.**

Lin discloses in **fig. 1** it is broadly interpreted that from the figure any pair of network elements can form its own network separate from other network elements.

See similar motivation as claim 25.

7.   Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kanterakis in view of Lin in further of Alexander et al. (US Patent No. 7,411,901 B1), hereinafter referred as Alexander.

Regarding claim 30, Kanterakis discloses a timer as to the parent claim. **However Kanterakis does not expressly discloses a time limit that changes dynamically.**

Alexander discloses a dynamic timer for controlling the transmission of

data **[abstract].**

Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the teachings of Kanterakis in view of Lin to

include a dynamic timer. One would be motivated as such in order efficiently

manage data transmission by adaptively controlling the transmission rate **col. 2**

lines 3-24.

8.   Claims 33-37, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lin in view of Kanterakis.

Regarding claim 33, Lin discloses a method of file delivery over a network

comprising the steps of: receiving a request for a file from a first host at a

network element **[col. 6 lines 18-35 teaches a network element receiving a**

request for a file from another network element]; storing the file in a cache

associated with the network element **[col. 6 lines 18-35 teaches storing a file**

at a network element]; defining a group including the first host **[the group is**

defined as those network elements who requested the file]; waiting for a

period of time until a predetermined condition is met where, if further requests for

said file are received by the network element from one or more other hosts

before the period of time expires **[col. 6 lines 18-35 teaches a network element**

in a wait state to accept all transmission requests from network element

requesting the file], then said one or more other hosts are added to the group

[the network elements are interpreted as being added to the group when
the file is transmitted to all network elements that requested to the file
upon expiration of the timer [col. 6 lines 30-45]; and forwarding the file to the
first host and to any other hosts in said group, wherein the group is limited to the
first host and other hosts situated at the same location as the first host [col. 6
lines 43-45 transmits the file to all the network elements in the group that
requested the transmission of the file].

However Lin does not expressly disclose retrieving the file from a
second host.

Kanterakis discloses col. 3 line 60-67 receiving data from a first network
to forward to another host.

Therefore, it would have been obvious to one of ordinary skill in the art at
the time of the invention to modify the teachings of Lin to include retrieving a file
from a second host. One would be motivated as such in order efficiently use
channel resources by collecting all data before transmitting data through the
channel col. 3 lines 1-7.

Regarding claim 34, Lin discloses sending a request for a file [col. 6 lines
30-35]. However Lin does not expressly discloses communication by the
first host is by a cellular communications network and another host is
considered to be at the same location as the first host if it is situated in an
area covered by the same cell.

Kanterakis discloses **CDMA** communication within a cell with a node communicating with multiple mobile nodes **[col. 3 lines 60-67]**.

See similar motivation as claim 33.

Regarding claim 35, Lin discloses forwarding a file over a network **[col. 6 lines 30-50. However Lin does not expressly disclose an apparatus being the last network element before an air-interface in a file delivery path between the second host and the first host.**

Kanterakis discloses in **[col. 3 lines 60-67]** is the air interface between the mobile nodes in the network.

See similar motivation as claim 33.

Regarding claim 36, **Lin does not expressly disclose a router.** Kanterakis discloses wherein the network element comprises a router **[col. 13 – 14 teaches a router].**

See similar motivation as claim 33.

Regarding claim 37, Lin discloses a node in a wait state **[col. 6 lines 30-35]** and transmitting a file upon the expiration of the wait state. The wait state is interpreted as the expiry of a time limit.

Regarding claim 39, Lin discloses a method as to the parent claim.

However Lin does not expressly disclose wherein the request is received via a first communications network and the file is forwarded via a second communications network.

Kanterakis discloses receiving data from a core network and forwarding corresponding data through another network **col. 3 lines 60-67.**

See similar motivation as claim 33.

9.   Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Kanterakis in further view of Alexander.

Regarding claim 38, Lin discloses a wait state **[col. 6 lines 30-35].**

However Lin does not expressly discloses a dynamic time limit.

Alexander discloses a dynamic timer for controlling the transmission of data **[abstract].**

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the teachings of Lin to include a dynamic timer. One would be motivated as such in order efficiently manage data transmission by adaptively controlling the transmission rate **col. 2 lines 3-24.**

10.   Claims 40 rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Kanterakis in view of Iliadis (US Publication No. 2001/0015958 A1), hereinafter referred as Iliadis.

   Regarding claims 40, Lin discloses a method as to the parent claim.

However Lin does not expressly discloses a computer program comprising

program instructions for operating a network element.

   Iliadis discloses in **par. 42** a computer readable product comprising

computer program code executable by a processor.

   Therefore, it would have been obvious to one of ordinary skill in the art at

the time of the invention to modify the teachings of Lin in view of Kanterakis in

further view of Iliaids to include a computer readable medium. One would be

motivated as such in order execute and operate a node to carry out a process by

a processor **par. 42.**

Conclusion

11. Any response to this action should be **faxed** to (571) 173-8300 or **mailed** to:

    Commissioner of Patents
    P.O. Box 1450
    Alexandria, VA 22313-1450

    Hand delivered responses should be brought to:
    Customer Service Window
    Randolph Building
    401 Dulany Street
    Alexandria, VA 22314

   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to DANIEL MITCHELL whose telephone number is

(571)270-5307. The examiner can normally be reached on Monday - Friday 8:00 am -

5:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on 571-272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. M./
Examiner, Art Unit 2419

/DANG T TON/

Supervisory Patent Examiner, Art Unit 2419/D. T. T./

Supervisory Patent Examiner, Art Unit 2419